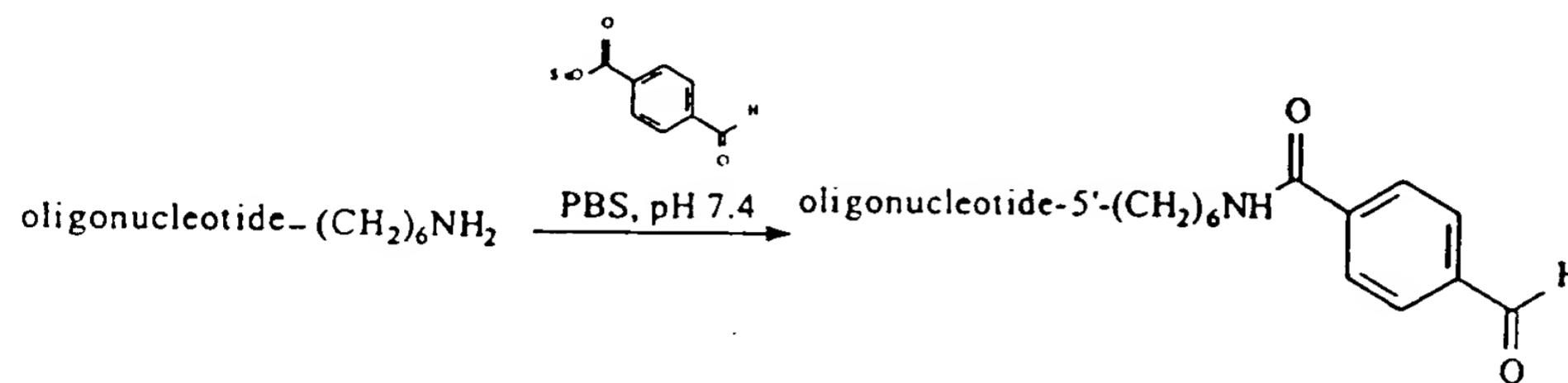




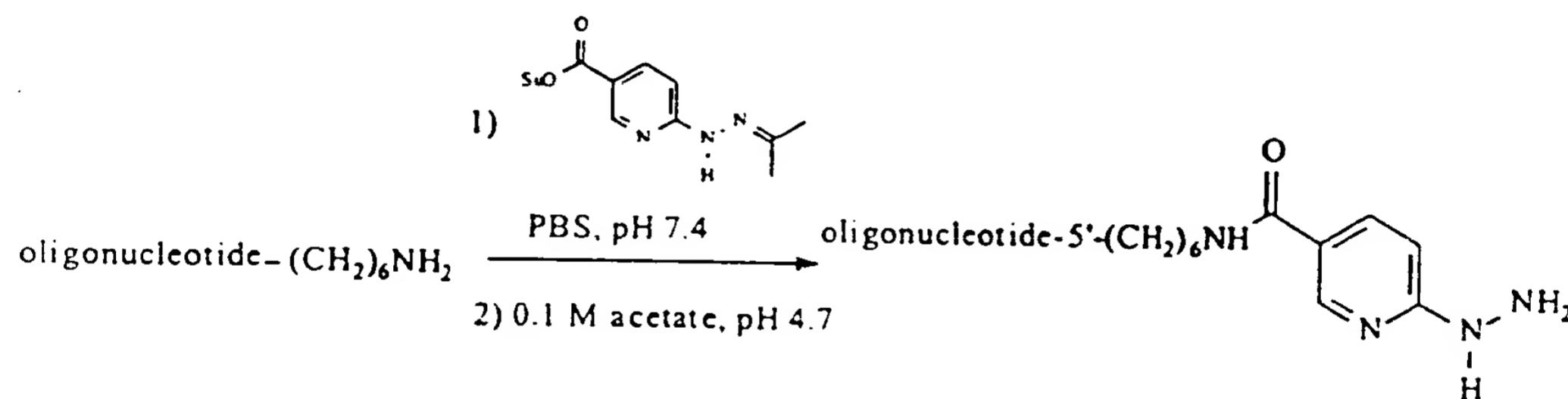
HELLER EHRLICH WHITE & NICHAELLE LLP
Sheet 5 of 9
Title: HYDRAZINE-BASED AND C BASED BIFUNCTIONAL
CROSSLINKING REAGENTS
Applicant: David A. Schwartz
Serial No. To be assigned Filed: March 22, 2001
Our Docket No. 37154-753

FIGURE 5

Preparation of 5'-aromatic aldehyde-modified oligonucleotide:



Preparation of 5'-heteroaromatic hydrazine-modified oligonucleotide:



Conjugation of hydrazino-modified oligonucleotide to aldehyde-modified oligonucleotide

